

Issues, Branches, Forks, Requests, CI, and Workflows

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Available at

[https://homepages.laas.fr/gsaurel/
23-git-forges.pdf](https://homepages.laas.fr/gsaurel/23-git-forges.pdf)

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<https://creativecommons.org/licenses/by-sa/4.0/>

Source

[https://gitlab.laas.fr/gsaurel/talks :
23-git-forges.md](https://gitlab.laas.fr/gsaurel/talks : 23-git-forges.md)

Discussions

<https://im.laas.fr/#/room/#git-forges:laas.fr>

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Introduction

- Software management
 - git repository (web, HTTPS, SSH)
 - authorizations
 - issue tracker

- Software management
 - git repository (web, HTTPS, SSH)
 - authorizations
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- Project management
 - milestones
 - assignees
 - boards

- 1 domain
 - 2 username *OR* group (organization)
 - 3 project
- `https:// gitlab.laas.fr / gsaurel / talks`
 - `https:// github.com / gepetto / example-adder`

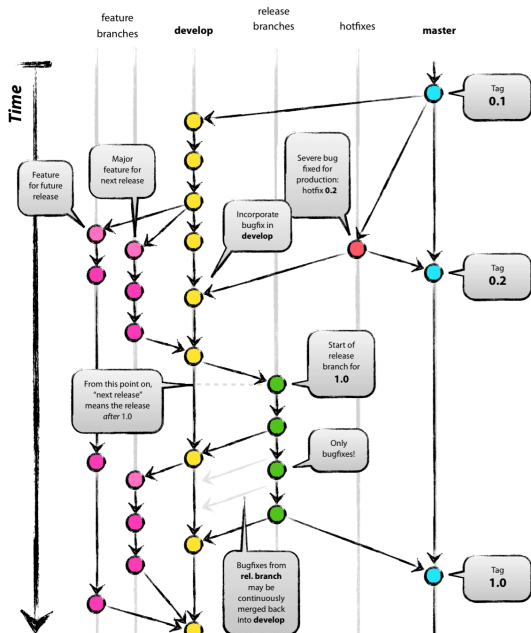
- bug fix / feature request
- Github / Gitlab: #4
- referencable from git:
 - `git commit -m "add user input test, ref #4"`
 - `git commit -m "sanitize user input, fix #4"`

- labels
- discussions
- boards (or table / roadmap)

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- discussions
- boards (or table / roadmap)
- open / close

Branches

Goal



- default: master or main
- devel, stable
- issue/5
- topic/something

Forks

- scission (software development)
 - document motivations
 - rename
 - change logo / website etc.
 - ensure compatibility
- collaboration (git forges)
 - try to keep synchronized

- scission (software development)
 - document motivations
 - rename
 - change logo / website etc.
 - ensure compatibility
- **collaboration (git forges)**
 - try to keep synchronized

```
git clone git@github.com:gsaurel/project.git
cd project
git remote add team \
    git@github.com:team/project.git
```

```
git clone git@github.com:gsaurel/project.git
cd project
git remote add team \
    git@github.com:team/project.git

git pull team main
git push origin main
```

```
# ~/.ssh/config
Host gl
    HostName gitlab.laas.fr
    User git
Host gh
    HostName github.com
    User git

git clone gl:gsaurel/project
git remote add team gh:team/project
```

Requests

The screenshot displays the GitLab web interface for a project named 'example-adder'. At the top, a green notification banner states: 'You pushed to devel at Guilhem Saurel / example-adder 7 minutes ago' with a 'Create merge request' button. Below this, the project name 'example-adder' is shown with 'Project ID: 165'. The interface includes statistics: '14 Commits', '4 Branches', '10 Tags', '1.5 MB Files', and '13 MB Storage'. A description reads: 'This is an example project, to show how to use Gepetto's tools' and 'Forked from Gepetto / example-adder'. A navigation bar shows 'master' and 'example-adder / +'. Action buttons include 'History', 'Find file', 'Web IDE', 'Download', and 'Clone'. A commit entry is visible: 'release: Update package.xml version to 4.0.2' by Guilhem Saurel, authored 1 month ago, with commit hash '70b0d164'. Below the commit, there are buttons for 'Upload File', 'README', 'BSD 2-Clause "Simplified" License', 'CI/CD configuration', 'Add CHANGELOG', 'Add CONTRIBUTING', 'Add Kubernetes cluster', and 'Configure Integrations'. At the bottom, a table header shows 'Name', 'Last commit', and 'Last update'.

Figure 2: Merge Request

```
git push -o merge_request.create \  
        -o merge_request.target=devel \  
        origin topic/something
```

The screenshot shows a GitHub pull request page for the repository 'nim65s / example-adder'. The page is dark-themed and displays the following information:

- Repository:** nim65s / example-adder (Public), forked from Gepetto/example-adder.
- Navigation:** Code (selected), Pull requests, Actions, Projects, Wiki, Security, Insights, Settings.
- Branches:** devel had recent pushes 2 minutes ago. A green button 'Compare & pull request' is visible.
- Branches and Tags:** master (selected), 8 branches, 10 tags. Buttons for 'Go to file', 'Add file', and 'Code' are present.
- Status:** This branch is up to date with Gepetto:master. Buttons for 'Contribute' and 'Fetch upstream' are visible.
- Commit:** nim65s release: Update package.xml version to 4.0.2 (79b0d16 on 8 Dec 2021, 14 commits).
- Files:**

File	Description	Time
cmake @ 84f1ae1	[Cmake] Add Submodule	2 months ago
include/example-adder	[Bindings] Add Python bindings	2 months ago
python	[Bindings] Add Python bindings	2 months ago
src	[bin] Add gepetto-example-adder executable	2 months ago
tests	[Tests] Check main executable	2 months ago
.gitlab-ci.yml	[CI] Add gitlab-ci.yml	2 months ago
- Right Sidebar:**
 - About:** This is an example project, to show how to use Gepetto's tools. Includes Readme, BSD-2-Clause License, 0 stars, 2 watching, 4 forks.
 - Releases:** 10 tags, Create a new release.
 - Packages:**

Figure 3: Pull Request

Required: <https://cli.github.com/>
gh pr create

CI

```
# .gitlab-ci.yml
image: gitlab.laas.fr:4567/gsaurel/talks

build:
  script:
    - make

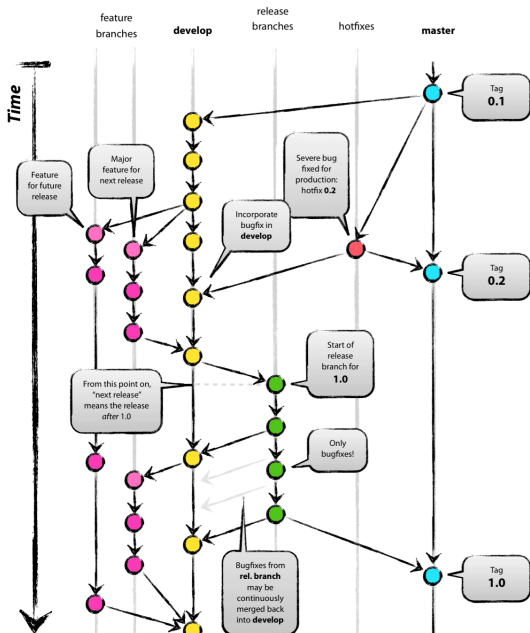
test:
  script:
    - make test
```

```
# .github/workflows/build.yml
name: Build
on: [push,pull_request]

jobs:
  build:
    name: Transpile markdown sources into PDF
    runs-on: nim65s/talks
    steps:
      - uses: actions/checkout@v4
      - run: make
```

Workflows

Example



End notes

<https://learngitbranching.js.org/>

<https://nvie.com/posts/a-successful-git-branching-model/>

<https://docs.github.com/fr/get-started/quickstart/github-flow>